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1652

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : James C. Liao
Serial No. : 10/048,186
Filed : June 19, 2002
Title : ENGINEERING OF METABOLIC CONTROL

Art Unit : 1652
Examiner : Unknown

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

Applicant submits the references listed on the attached form PTO-1449 and a copy of the supplementary European search report dated February 26, 2004, issued in a counterpart international application EP 00950804.5.

This statement is being filed after a first Office action on the merits, but before receipt of a final Office action or a Notice of Allowance. Each item of information contained in this statement was cited in a communication from a foreign patent office in a counterpart foreign application, the communication being dated February 26, 2004, which is not more than three months prior to the filing of this statement. Please apply any charges or credits to Deposit Account No. 06-1050.

Respectfully submitted,

Date: 25 May 2004

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I hereby certify under 37 CFR §1.8(a) that this correspondence is being deposited with the United States Postal Service as first class mail with sufficient postage on the date indicated below and is addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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Substitute Form PTO-1449 (Modified) Information Disclosure Statement by Applicant (Use several sheets if necessary) (37 CFR §1.98(b))	U.S. Department of Commerce Patent and Trademark Office	Attorney's Docket No. 06497-013002	Application No. 10/048,186
	Applicant James C. Liao		
	Filing Date June 19, 2002	Group Art Unit 1652	

U.S. Patent Documents							
Examiner Initial	Desig. ID	Document Number	Publication Date	Patentee	Class	Subclass	Filing Date If Appropriate
	DA						
	DB						
	DC						

Foreign Patent Documents or Published Foreign Patent Applications								
Examiner Initial	Desig. ID	Document Number	Publication Date	Country or Patent Office	Class	Subclass	Translation	
							Yes	No
	DD							
	DE							

Other Documents (include Author, Title, Date, and Place of Publication)		
Examiner Initial	Desig. ID	Document
	DF	Albrecht, M. et al., "Metabolic Engineering of the Terpenoid Biosynthetic Pathway of <i>Echerichia Coli</i> for Production of the Carotenoids β -Carotene and Zeaxanthin", <i>Biotechnology Letters</i> Vol. 21, pp. 791-795, XP009007288; 1999.
	DG	Matthews, P.D and Wurtzel E.T., "Metabolic Engineering of Carotenoid Accumulation in <i>Echerichia coli</i> by Modulation of the Isoprenoid Precursor pool with Expression of Deoxyxylulose Phosphate Synthase", <i>Applied Microbiology Biotechnology</i> , Vol. 53, pp. 396-400, XP-000941210; 2000
	DH	Misawa N. and Shimada H., "Metabolic Engineering for the Production of Carotenoids in Non-Carotenogenic Bacteria and Yeasts", <i>Journal of Biotechnology</i> , Vol. 59, pp. 169-181, 1998.
	DI	Patnaik R. and Liao, J.C., "Engineering of <i>Echerichia coli</i> Central Metabolism for Aromatic Metabolite Production with Near Theoretical Yield", <i>Applied and Environmental Microbiology</i> , Vol. 60, No. 11, pp. 3903-3908, XP 000610868, 1994.
	DJ	Patnaik, R. et al., "Pathway Engineering for Production of Aromatics in <i>Echerichia coli</i> : Confirmation of Stoichiometric Analysis by Independent Modulation of AroG, TktA, and Pps Activities", <i>Biotechnology and Bioengineering</i> , Vol. 46, pp. 361-370, XP-000882934, 1995.
	DK	Sandmann, G. et al., "The Biotechnological Potential and Design of Novel Carotenoids by Gene Combination in <i>Echerichia coli</i> ", <i>Trends in Biotechnology, Reviews</i> , Vol. 17, pp. 233-237, 1999.
	DL	Schmidt-Dannert, C., "Engineering Novel Carotenoids in Microorganisms", <i>Current Opinion in Biotechnology</i> , Vol. 11, pp. 255-261, XP000985860, 2000.
	DM	Shimada, H. et al., "Increased Carotenoid Production by the Food Yeast <i>Candida utilis</i> through Metabolic Engineering of Isoprenoid Pathway", <i>Applied and Environmental Microbiology</i> , Vol. 64, No.7, pp. 2676-2680, XP-002269481, 1998.
	DN	Communication dated February 26, 2004 for EP 00 95 0804.5 (8 pages)

Examiner Signature	Date Considered
EXAMINER: Initials citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.	